

Serial No. 10/799,652

Atty. Docket No. 249/454

Amendment dated January 17, 2008Reply to Office action of September 17, 2007AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of Claims:

1. (Currently Amended) A baking system including a plate for receiving a wafer to be baked, a heater for heating the plate, and a cooling apparatus for cooling the plate, the cooling apparatus comprising:

a ~~cooling element~~ heatpipe for cooling the plate using vaporization of a coolant therein, the ~~cooling element~~ heatpipe arranged in proximity to the plate with the heater disposed therebetween;

a coolant storage tank for supplying the coolant ~~[[to]]~~ into the ~~cooling element~~ heatpipe when the plate is cooled and for storing the coolant supplied to the heatpipe when the plate is heated; and

a thermostatic element for maintaining ~~[[a]]~~ an approximately constant temperature of the coolant supplied into the ~~cooling element~~ constant heatpipe when the plate is cooled.

2. (Currently Amended) The baking system as claimed in claim 1, wherein the coolant storage tank comprises a coolant flowing element for flowing the coolant into the ~~cooling element~~ heatpipe when the plate is cooled.

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3. (Currently Amended) The baking system as claimed in claim 1, wherein the thermostatic element comprises:

a cooling water storage tank for circulating cooling water through the ~~cooling element~~ heatpipe; and

a cooling water supply pipeline, which is a path of the cooling water, that extends into the ~~cooling element~~ heatpipe and provides flow communication between the ~~cooling element~~ heatpipe and the cooling water storage tank.

4. (Currently Amended) The baking system as claimed in claim 3, wherein the cooling water supply pipeline has a valve between the cooling water storage tank and the ~~cooling element~~ heatpipe.

5. (Currently Amended) The baking system as claimed in claim 1, further comprising a coolant supply pipeline for providing flow communication between the coolant storage tank and the ~~cooling element~~ heatpipe.

6. (Currently Amended) The baking system as claimed in claim 5, wherein the coolant supply pipeline has a valve between the coolant storage tank and the ~~cooling element~~ heatpipe.

7. (Currently Amended) The baking system as claimed in claim 1, wherein the ~~cooling element is a heatpipe having~~ includes a ceiling portion and internal side portions.

8.- 9. (Cancelled)

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10. (Original) The baking system as claimed in claim 2, wherein the coolant flowing element is a heater disposed adjacent to the coolant storage tank.

11. (Original) The baking system as claimed in claim 2, wherein the coolant flowing element is a heater integrated with the coolant storage tank in a single body.

12. (Currently Amended) The baking system as claimed in claim 7, wherein the heatpipe comprises a wick on the ceiling portion and a wick on the internal side portions of the heatpipe.

13. (Currently Amended) The baking system as claimed in claim ~~[[8]]~~ 12, wherein the ~~heatpipe comprises a wick on the ceiling portion and~~ the wick on the internal side portions of the heatpipe has a linear shape, a spiral shape or a radial shape.

14. (Currently Amended) The baking system as claimed in claim ~~[[9]]~~ 13, wherein the ~~heatpipe comprises a wick on the ceiling portion~~ ~~[[and]]~~ has a different shape than the wick on the internal side portions of the heatpipe.

15. (Original) The baking system as claimed in claim 7, further comprising:
a wick plate having a plurality of planar wicks installed on the ceiling portion of the heatpipe; and
a wick formed on the internal side portions of the heatpipe to guide the coolant to flow toward the wick plate.

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16. (Currently Amended) The baking system as claimed in claim ~~[[8]] 15~~, further comprising:

~~a wick plate having a plurality of planar wicks installed on the ceiling portion of the heatpipe; and~~

~~a wherein the wick formed on the internal side portions of the heatpipe to guide the coolant to flow toward the wick plate has a linear shape, a spiral shape or a radial shape.~~

17. (Cancelled)

18. (Currently Amended) The baking system as claimed in claim 7, further comprising a wick plate installed on the ceiling portion and a wick plate installed on the internal side portions of the heatpipe.

19.-20. (Cancelled)

21. (Original) The baking system as claimed in claim 1, wherein the coolant is selected from the group consisting of acetone, methanol, water, and distilled water.